

Notic of Allowability

Application No.

10/682,200

Examiner

Christopher Verdier

Applicant(s)

FAVRE-FELIX ET AL.

Art Unit

3745

CN

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1-16-04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Cushing, Attorney of Record, on January 10, 2005.

The application has been amended as follows:

In the Specification:

On page 18, line 2, "the invention provides" has been changed to -- There is provided --.

On page 18, last line, "Figure 5" has been deleted.

In the Claims:

In claim 1, line 2, -- a -- has been inserted after "of".

In claim 7, line 2, "an annular connection region," has been deleted.

In the Drawings:

The following changes to the drawings have been approved by the examiner and agreed upon by Applicant: In order to avoid abandonment of the application, applicant must make these agreed upon drawing changes.

Figure 1 may be labeled as "Prior Art".

The above changes to the specification have been made to correct informalities. The above changes to the claims have been made to correct obvious informalities therein. The above change to figure 1 has been approved in order to label figure 1 as "Prior Art".

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The instant application is directed towards an unobvious improvement over the prior art described on page 2, lines 22-30 of the specification. The prior art discloses a turbo/drag vacuum pump having a rotor in which the downstream segment in a Holweck type skirt is made of an organic matrix composite material based on fiber-filled resin, with the downstream segment being connected to an upstream segment of the skirt via an annular connection region, with the upstream segment being metal. The improvement comprises the downstream segment having a fiber reinforcing structure imparting mechanical characteristics to the Holweck skirt that vary as a function of the longitudinal region under consideration of the skirt, with the organic matrix composite material in the annular connection region presenting mechanical and thermal characteristics close to those of the metal or alloy constituting the upstream rotor

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segment, and with the organic matrix composite material in the downstream region of the skirt presenting characteristics that are more suitable for withstanding the high mechanical stresses that result in this downstream region of the skirt from the high-speed rotation of the rotor in operation. None of the prior art of record discloses or suggests the improvement.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Conrad and Schutz are cited as U.S. equivalents to the foreign art cited by Applicants.

Kawasaki is cited as the parent case of U.S. Patent Application Publication 2002/0054815 cited by Applicants.

Nonaka is cited to show a vacuum pump with a rotor 18-1 made of carbon resin.

Bakholdin is cited to show a flywheel made of fiber composite attached to a molecular pump.

Schofield is cited to show a vacuum pump with cylinders made of a fiber reinforced material.

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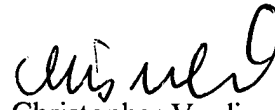
Medney, Malburg, Wackerle, Graham, and Varley are cited to show various winding methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.
January 10, 2005


Christopher Verdier
Primary Examiner
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